

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**



(19)

(11) Publication number:

**09164384 A**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **07327394**(51) Intl. Cl.: **C02F 1/24 B01D 17/035**(22) Application date: **15.12.95**

(30) Priority:

(43) Date of application  
publication: **24.06.97**(84) Designated contracting  
states:(71) Applicant: **mitsui mining co ltd**(72) Inventor: **HISAYOSHI YOSHINORI  
KIHARA TETSUTARO  
MORIYA SHOICHIRO**

(74) Representative:

**(54) FLOATATION  
SEPARATOR EQUIPMENT**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To heighten the concentration degree of solid matter such as active sludge contained in waste water.

**SOLUTION:** A floatation separator tank 1 for concentrating solid matter such as active sludge contained in waste water to be treated is formed to a circular cross sectional shape, and also at a position almost half the liquid depth of the floatation separator tank 1, a discharge nozzle 34 for introducing waste water into the floatation separator tank 2 is installed, and waste water is horizontally discharged from the discharge nozzle 34. Since the discharge nozzle 34 is located at a position apart from the water surface, the part near water surface is kept in a stationary state, and also since waste water flowing out from the discharge nozzle 34 is rapidly and uniformly dispersed in the horizontal direction, the whole water surface is effectively utilized to concentrate solid matter such as activated sludge.

